

## **REMARKS**

The Office Action dated October 28, 2008, has been received and carefully noted. The above amendments to the claims, and the following remarks, are submitted as a full and complete response thereto.

### **Status of the Claims**

Claims 1, 3, 4, 8, 13-16, 18, 20-25, 27, 28, 31 and 32 have been amended to more particularly point out and distinctly claim the subject matter of the invention. New claims 33-65 have been added. No new matter has been added. Thus, claims 1, 3, 4, 7-9, 13-16 and 18-65 are currently pending in the application and are respectfully submitted for consideration.

### **Improper Finality**

On pages 8 and 9 of the Office Action, claim 14 was rejected over Yao et al. and Hwang et al. However, the Office Action failed to address all of the features recited in claim 14 in the Office Action. Specifically, the Office Action did not address an embedded data block **anywhere** in the rejection of claim 14. As such, the Office Action is not complete as to all matters as required by 37 C.F.R. § 1.104(b).

Further, MPEP § 2143.03 indicates that, “**All words** in a claim must be considered in judging the patentability of that claim against the prior art” (emphasis added). Furthermore, MPEP § 2143 states that “[t]he key to supporting any rejection under 35 U.S.C. 103 is the **clear articulation** of the reason(s) why the claimed invention would have been obvious. The Supreme Court in KSR noted that the analysis supporting a

rejection under 35 U.S.C. 103 should be made explicit” (emphasis added). Because the rejection failed to consider all the words in claim 14, and because the rejection lacks a clear articulation of the reasons why the unaddressed features would allegedly have been obvious, the rejection cannot be supported per the requirements set forth by the MPEP and the United States Supreme Court. Therefore, the Office Action failed to make a *prima facie* case for obviousness by failing to address all the limitations recited in the pending claims.

Applicants respectfully note that at least because the Office Action failed to establish a *prima facie* case of obviousness, and because the Office Action is not complete as to all matters under 37 C.F.R. § 1.104(b), the finality of the outstanding Office Action is improper and **must be withdrawn**.

### **Rejections under 35 U.S.C. § 103**

Claims 1, 3, 4, 7, 16 and 31 were rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Hwang et al. (EP 0981229 A2) in view of Yao et al. (U.S. Patent No. 6,785,262) and further in view of Tiedemann et al. (U.S. Patent No. 5,914,950). The Office Action took the position on pages 2-6 that the combination of Hwang et al., Yao et al. and Tiedemann et al. teaches all of the features of the rejected claims. Applicants respectfully traverse the rejection. Reconsideration of the claims is respectfully requested.

Independent claim 1, from which claims 3, 4, 7 and 16 depend, recites a method including monitoring a length of a data queue in a first network element as an indication

of future need of communication resources in the first network element. The indication includes a coded value of the length of the data queue in the first network element. The length of the data queue is embedded in a data block from the first network element. The method also includes allocating the communications resources for a transmission between the first network element and a second network element based on the indication.

Independent claim 31 recites a computer program embodied on a computer-readable storage medium configured to control a processor to perform a process, including monitoring a length of a data queue in a first network element as an indication of future need of communication resources in the first network element. The indication comprises a coded value of a length of a data queue in the first network element. The length of the data queue is embedded in a data block from the first network element. The process also includes allocating the communications resources for a transmission between the first network element and a second network element based on the indication.

As will be discussed below, Hwang et al., Yao et al. and Tiedemann et al., both individually and in combination, fail to teach or suggest all of the features of the above-rejected claims.

Hwang et al. generally discusses a “method and apparatus for controlling asymmetric dynamic radio bearers in a mobile packet data communications system [that] involves use of the radio bearers for the specified data rate corresponding to the data rate according to the amount of transmit data and vary the data rate, thereby [allegedly] making it possible to efficiently use the radio resources and prevent excessive power

consumption and signal interference” (Abstract). “The mobile station 1 includes a transmit buffer 1b for temporarily storing transmit data according to the requested radio data service, and an [sic] MAC 1a for establishing a plurality of radio bearers used to send the transmit data at a data rate corresponding to the radio data service and examining the transmit buffer 1b to increase or decrease the number of the plural radio bearers established” (paragraph [0025] of Hwang et al.).

Yao et al. generally discusses “providing an [allegedly] efficient method and apparatus for reducing voice latency associated with a voice-over-data wireless communication system” (column 1, lines 9-12). “[I]n a voice-over-data communication system, data frames are dropped in a transmitter at a fixed, predetermined rate prior to storage in a queue. Audio information, such as voice, is transformed into data frames by a voice-encoder, or vocoder, at a fixed rate ... every 20 milliseconds” (column 3, lines 5-11, of Yao et al.).

Tiedemann et al. generally discusses “reverse link rate scheduling in a communication system having a variable data transmission rate” (column 1, lines 9-11). “During a communication with a cell, each remote station can transmit unscheduled transmissions at rates up to a maximum unscheduled transmission rate over the reverse link” (column 4, lines 45-47, of Tiedemann et al.). “[A] channel scheduler determines the maximum scheduled transmission rate for high speed data transmission. The maximum scheduled transmission rate is assigned at each scheduling period according to the availability of the reverse link capacity” (column 4, lines 55-59, of Tiedemann et al.).

Independent claim 1 recites, in part, “monitoring a length of a data queue in a first network element as an indication of future need of communication resources in the first network element”. Independent claim 31, which has its own scope, recites similar features. Applicants respectfully submit that the cited art fails to teach or suggest these features.

As discussed in Hwang et al., “[t]he mobile station 1 includes a transmit buffer 1b for temporarily storing transmit data according to the requested radio data service, and an [sic] MAC 1a for establishing a plurality of radio bearers used to send the transmit data at a data rate corresponding to the radio data service and examining the transmit buffer 1b to increase or decrease the number of the plural radio bearers established” (paragraph [0025]). In other words, the mobile station examines its own transmit buffer. On the other hand, claim 1 recites that monitoring a length of a data queue in a first network element is performed by a second network element. In other words, one network element is performing monitoring of the data queue of a **different** network element. In some embodiments, the first network element may be, for example, a mobile terminal, and the second network element may be, for example, a base station. There is simply no teaching or suggestion in Hwang et al. that a second network element monitors a data queue of a first network element, nor is there evidence that configurations discussed in Hwang et al. are capable of doing so.

Yao et al. also fails to cure these deficiencies of Hwang et al. Yao et al. discusses that “[a]s frames are transmitted by transmitter 400, processor 410 determines the quality

of the communication channel by determining the length of queue 408” (column 12, lines 6-8). Note that all of the elements depicted in Fig. 4 are part of the same transmitter 400. As such, the device having the transmitter monitors its own queue length. As such, not only does Yao et al. fail to teach or suggest that a second network element monitors a data queue of a first network element, Tao et al. explicitly teaches away from these features. Further, nothing is cited or found in Tiedemann et al. that overcomes these deficiencies of Hwang et al. and Yao et al.

Independent claim 1 also recites, in part, that “the length of the data queue is embedded in a data block from the first network element”. Independent claim 31, which has its own scope, recites similar features. The Office Action conceded on page 4 that Hwang et al. and Yao et al. do not disclose these features. Rather, the Office Action relied on column 21, lines 51-53, of Tiedemann et al. to allegedly cure these deficiencies of Hwang et al. and Yao et al. Applicants respectfully submit that Tiedemann et al. does not teach or suggest these features.

Tiedemann et al. discusses that:

The queue size from the remote station 6 is taken into consideration in assigning the maximum scheduled transmission rate. The queue size is indicative of the amount of data to be transmitted by remote station 6 as of the time remote station 6 receives the data. At the start of each scheduling period, the queue size of all scheduled tasks are sent to channel scheduler 12. Channel scheduler 12 assigns a high speed transmission rate in accordance with the queue size.

(Column 21, lines 49-57). In other words, Tiedemann et al. discusses that the queue size of all scheduled tasks is sent to the scheduler so a transmission rate will be assigned in

accordance with the queue size. On the other hand, claim 1 recites that the length of the data queue is embedded in a data block from the first network element, and monitored by the second network element. In some embodiments, this may be performed over an air interface. Applicants respectfully submit that this differs significantly from the above-discussed operations of Tiedemann et al.

Independent claim 1 further recites that “the indication comprises a coded value of the length of the data queue in the first network element”. Independent claim 31, which has its own scope, recites similar features. The Office Action conceded on page 3 that Yao et al. does not disclose these features, instead relying on Fig. 3, reference numeral 10 and column 12, lines 6-8 and 41-43, of Yao et al. Applicants respectfully submit that Yao et al. fails to teach or suggest these features.

The data stream 500 of Fig. 5 of Yao et al. illustrates “the contents of queue 408, shown as a series of sequential vocoder frames, each frame having a length of 20 milliseconds” (see Fig. 5 and column 9, lines 50-54). The queue in Yao et al. does not contain a coded indication of the queue’s length. At best, the queue has a frame length of 20 milliseconds. Applicants submit that the static, constant frame length of Yao et al. teaches away from providing an indication of a queue length within the frame. Further, while Yao et al. may determine the quality of the communications channel by examining the length of the queue, per the above, Yao et al. is silent with respect to a coded representation of a queue length. Thus, Yao et al. merely discusses the data rate, and, in an apparently unrelated process, uses the length of the queue to determine a rate at which

frames are dropped. Thus, Yao et al. fails to cure these deficiencies of Hwang et al. Further, nothing is cited or found in Tiedemann et al. that overcomes these deficiencies of Hwang et al. and Yao et al.

Claim 4 recites that “the monitoring of the indication further comprises monitoring information on additional resources needed by said first network element.” Applicants respectfully submit that the cited art fails to teach or suggest these features. The Office Action alleged that the features of claim 4 are disclosed by Fig. 4, column 2, lines 28-34, and column 7, lines 9-36, of Hwang et al. Applicants respectfully disagree.

The cited sections of Hwang et al. generally discuss comparing a data buffer status with predefined thresholds and adjusting the status according to this comparison. There is simply no teaching or suggestion in Hwang et al. of sending additional information in the indication transmitted between the first network element and the second network element, as claimed. Further, nothing is cited or found in Yao et al. or Tiedemann et al. that overcomes these deficiencies of Hwang et al.

Claims 3, 4, 7 and 16 depend from independent claim 1 and add further features thereto. Thus, the arguments above with respect to the independent claims also apply to the dependent claims.

Per the above, Hwang et al., Yao et al. and Tiedemann et al., both individually and in combination, fail to teach or suggest all of the features of the above-rejected claims under 35 U.S.C. § 103(a). Accordingly, it is respectfully submitted that the rejection is overcome and respectfully requested that the rejection be withdrawn.



Claims 8, 9, 13, 14, 18 and 26-28 were rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Yao et al. in view of Hwang et al. The Office Action took the position on pages 6-10 that the combination of Hwang et al. and Yao et al. teaches all of the features of the rejected claims. Applicants respectfully traverse the rejection. Reconsideration of the claims is respectfully requested.

Independent claim 8, from which claims 9 and 13 depend, recites a system including a plurality of first stations, a second station connected to the plurality of first stations through a plurality of communication links and a controller configured to control allocation of the communication resources among the communication links. The controller is separate and independent from the first stations. The allocation is performed in accordance with information transmitted from each of the first stations. The information from each of the first stations comprises a data block embedding a coded value of a length of a data queue in each of the first stations.

Independent claim 14, from which claims 18 and 26-28 depend, recites an apparatus including a controller configured to control allocation of communication resources for a mobile station. The allocation is based upon queue length information received from the mobile station that is embedded in a data block.

As will be discussed below, Yao et al. and Hwang et al., both individually and in combination, fail to teach or suggest all of the features of the above-rejected claims.

Independent claim 14 recites, in part, “a controller configured to control allocation of communication resources for a mobile station, wherein the allocation is based upon

queue length information received from the mobile station that is embedded in a data block.” Independent claim 8 recites “a data block embedding a coded value of a length of a data queue”. The Office Action stated on page 6 that “Hwang et al. in view of Yao et al. do not expressly disclose wherein the length of the data queue is embedded in a data block”. However, the Office Action alleged on page 7 with respect to claim 8 that these features are disclosed by column 9, lines 57-59, of Yao et al. Clearly, these positions are contradictory to one another and cannot both be maintained in the same Office Action. Applicants agree that Hwang et al. and Yao et al. do not teach these features since the cited section of Yao et al. merely discusses that “each vocoder frame contains a number of information bits depending on the data rate for the particular frame” (column 9, lines 57-59). This has nothing to do with embedding a coded value of a data queue length.

Also, as discussed above, Hwang et al. and Yao et al. do not teach or suggest using a coded value **as an indication of the length of the data queue**. The data stream 500 of Fig. 5 of Yao et al. illustrates “the contents of queue 408, shown as a series of sequential vocoder frames, each frame having a length of 20 milliseconds” (see Fig. 5 and column 9, lines 50-54). The queue in Yao et al. does not contain an indication of the queue’s length. At best, the queue has a frame length of 20 milliseconds. Applicants submit that the static, constant frame length of Yao et al. teaches away from providing an indication of a queue length within the frame. Further, while Yao et al. may determine the quality of the communications channel by examining the length of the queue, per the above, Yao et al. is silent with respect to a representation of a queue length. Thus, Yao et al. merely

discusses the data rate, and, in an apparently unrelated process, uses the length of the queue to determine a rate at which frames are dropped. Thus, Yao et al. fails to cure the deficiencies of Hwang et al. conceded by the Office Action.

Further, the Office Action did not address an embedded data block anywhere in the rejection of claim 14. As such, the Office Action is not complete as to all matters as required by 37 C.F.R. § 1.104(b). Accordingly, as noted above, the finality of the outstanding Office Action is improper and **must be withdrawn**.

Claims 9, 13, 18 and 26-28 depend from claims 8 or 14 and add further features thereto. Thus, the arguments above with respect to the independent claims also apply to the dependent claims.

Per the above, Hwang et al. and Yao et al., both individually and in combination, fail to teach or suggest all of the features of the above-rejected claims under 35 U.S.C. § 103(a). Accordingly, it is respectfully submitted that the rejection is overcome and respectfully requested that the rejection be withdrawn. Further, because all of the features of claim 14 were not addressed in the Office Action, the finality thereof is improper and must be withdrawn.

Claims 15, 19, 29 and 30 were rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Yao et al. The Office Action took the position on pages 10 and 11 that Yao et al. teaches all of the features of the rejected claims. Applicants respectfully traverse the rejection. Reconsideration of the claims is respectfully requested.

Independent claim 15, from which claims 19, 29 and 30 depend, recites an apparatus including a processor configured to encode a code representative of a length of a data queue embedded in a data block and transmit the data packets and the data block with the code included in the data block as a field.

As will be discussed below, Yao et al. fails to teach or suggest all of the features of the above-rejected claims.

Independent claim 15 recites, in part, a processor configured to “encode a code representative of a length of a data queue embedded in a data block”. The Office Action asserted on pages 10 and 11 that:

Yao et al. do not expressly disclose a length of the data queue embedded in a data block. To include the length of the data queue embedded in a data block would have been obvious to one of ordinary skill in the art because Yao et al. disclose each vocoder frame contains a number of information bits depending on the data rate for the particular frame (col. 9, lines 57-59).

However, the Office Action conceded on page 4 that Yao et al. does not disclose the length of a data queue being **embedded in a data block**. Clearly, these positions are contradictory to one another and cannot both be maintained in the same Office Action. Applicants agree that Yao et al. does not teach these features since the cited section of Yao et al. merely discusses that “each vocoder frame contains a number of information bits depending on the data rate for the particular frame” (column 9, lines 57-59). This has nothing to do with embedding a coded value of a data queue length.

As discussed above, Yao et al. also does not teach or suggest using a coded value **as an indication of the length of the data queue**. The data stream 500 of Fig. 5 of Yao

et al. illustrates “the contents of queue 408, shown as a series of sequential vocoder frames, each frame having a length of 20 milliseconds” (see Fig. 5 and column 9, lines 50-54). The queue in Yao et al. does not contain a coded indication of the queue’s length. At best, the queue has a frame length of 20 milliseconds. Applicants submit that the static, constant frame length of Yao et al. teaches away from providing an indication of a queue length within the frame. Further, while Yao et al. may determine the quality of the communications channel by examining the length of the queue, per the above, Yao et al. is silent with respect to a coded representation of a queue length. Thus, Yao et al. merely discusses the data rate, and, in an apparently unrelated process, uses the length of the queue to determine a rate at which frames are dropped.

Claims 19, 29 and 30 depend from independent claim 15 and add further features thereto. Thus, the arguments above with respect to independent claim 15 also apply to these claims.

Per the above, Yao et al. fails to teach or suggest all of the features of the above-rejected claims under 35 U.S.C. § 103(a). Accordingly, it is respectfully submitted that the rejection is overcome and respectfully requested that the rejection be withdrawn.

Claim 20 was rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Yao et al. in view of Tiedemann et al. The Office Action took the position on pages 11 and 12 that the combination of Yao et al. and Tiedemann et al. teaches all of the features of claim 20. Applicants respectfully traverse the rejection. Reconsideration of the claim is respectfully requested.

Independent claim 20 recites an apparatus including decoder means for decoding a code representative of a length of a data queue in a mobile station. The length of the data queue is embedded in a data block from the mobile station. The apparatus also includes controller means for controlling allocation of communication resources. The decoder means is configured to provide queue length information for the mobile station to the controller means.

As will be discussed below, Yao et al. and Tiedemann et al., both individually and in combination, fail to teach or suggest all of the features of claim 20.

Independent claim 20 recites, in part, that “the length of the data queue is embedded in a data block from the mobile station”. The Office Action conceded on page 12 that Yao et al. does not disclose these features. Rather, the Office Action relied on Tiedemann et al. to cure these deficiencies of Yao et al. Applicants respectfully submit that Tiedemann et al. also fails to teach or suggest these features.

Tiedemann et al. discusses that:

The queue size from the remote station 6 is taken into consideration in assigning the maximum scheduled transmission rate. The queue size is indicative of the amount of data to be transmitted by remote station 6 as of the time remote station 6 receives the data. At the start of each scheduling period, the queue size of all scheduled tasks are sent to channel scheduler 12. Channel scheduler 12 assigns a high speed transmission rate in accordance with the queue size.

(Column 21, lines 49-57). In other words, Tiedemann et al. discusses that the queue size of all scheduled tasks is sent to the scheduler so a transmission rate will be assigned in accordance with the queue size. On the other hand, claim 1 recites that the length of the

data queue is embedded in a data block from the first network element, and monitored by the second network element. In some embodiments, this may be performed over an air interface. Applicants respectfully submit that this differs significantly from the above-discussed operations of Tiedemann et al.

Per the above, Yao et al. and Tiedemann et al., both individually and in combination, fail to teach or suggest all of the features of claim 20 under 35 U.S.C. § 103(a). Accordingly, it is respectfully submitted that the rejection is overcome and respectfully requested that the rejection be withdrawn.

Claims 21-25 and 32 were rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Yao et al. in view of Ishida et al. (U.S. Patent No. 6,975,604). While not listed in the heading, Tiedemann et al. and Hwang et al. are also discussed in the body of the rejection. Thus, Applicants believe that the Office Action intended to include Tiedemann et al. and Hwang et al. in the rejection and they will be addressed accordingly. If this is not the case, Applicants respectfully request that the Examiner provide an appropriate indication in a next Action. The Office Action appeared to take the position on pages 12-17 that the combination of Yao et al., Hwang et al., Tiedemann et al. and Ishida et al. teaches all of the features of the above-rejected claims. Applicants respectfully traverse the rejection. Reconsideration of the claims is respectfully requested.

Independent claim 21 recites an apparatus including data generator means for generating data, data queue means for receiving data packets from the data generator

means and encoder means for encoding a code representative of a length of the data queue means. The encoder means is configured to embed the length of the data queue in data block. The apparatus also includes transmitter means for transmitting the data packets and the data block. The code is included in the data block as a field.

Independent claim 22, from which claims 23-25 depend, recites a method including generating data and encoding a code representative of a length of a data queue in a first network element. The length of the data queue is embedded in a data block and the data queue is configured to receive the generated data block. The method also includes transmitting data packets comprising a field comprising the code. The code is used when allocating communication resources for a transmission between the first network element and a second network element.

Independent claim 32 recites a computer program embodied on a computer-readable storage medium configured to control a processor to perform a process, including generating data and encoding a code representative of a length of a data queue in a first network element. The data queue is configured to receive the generated data. The length of the data queue is embedded in a data block from the first network element. The process also includes transmitting data packets comprising a field comprising the code. The code is used when allocating communication resources for a transmission between the first network element and a second network element.



As will be discussed below, Yao et al., Hwang et al., Tiedemann et al. and Ishida et al., both individually and in combination, fail to teach or suggest all of the features of the above-rejected claims.

Ishida et al. generally discusses a “communications controller for a radio communications system” (column 1, lines 6 and 7). The base station controller includes “a radio resource controller for maintaining a plurality of links between the mobile station and each of the base stations that the mobile station is currently reachable” (column 1, lines 40-43, of Ishida et al.).

Independent claim 21 recites that “the encoder means is configured to embed the length of the data queue in data block”. Independent claim 22 recites that “the length of the data queue is embedded in a data block”. Independent claim 32, which has its own scope, recites similar features to the quoted features from claim 22. The Office Action conceded on page 13 that Hwang et al. and Yao et al. do not disclose embedding the length of a data queue in a data block. Rather, the Office Action relied on Tiedemann et al. to cure these deficiencies of Hwang et al. and Yao et al. Applicants respectfully submit that Tiedemann et al. also fails to teach or suggest these features.

Tiedemann et al. discusses that:

The queue size from the remote station 6 is taken into consideration in assigning the maximum scheduled transmission rate. The queue size is indicative of the amount of data to be transmitted by remote station 6 as of the time remote station 6 receives the data. At the start of each scheduling period, the queue size of all scheduled tasks are sent to channel scheduler 12. Channel scheduler 12 assigns a high speed transmission rate in accordance with the queue size.

(Column 21, lines 49-57). In other words, Tiedemann et al. discusses that the queue size of all scheduled tasks is sent to the scheduler so a transmission rate will be assigned in accordance with the queue size. On the other hand, claim 1 recites that the length of the data queue is embedded in a data block from the first network element, and monitored by the second network element. In some embodiments, this may be performed over an air interface. Applicants respectfully submit that this differs significantly from the above-discussed operations of Tiedemann et al. Further, nothing is cited or found in Ishida et al. that cures these deficiencies.

With respect to the length of a data block, the Office Action relied on Yao et al. to allegedly teach these features. Applicants respectfully submit that Yao et al. fails to teach or suggest these features.

The data stream 500 of Fig. 5 of Yao et al. illustrates “the contents of queue 408, shown as a series of sequential vocoder frames, each frame having a length of 20 milliseconds” (see Fig. 5 and column 9, lines 50-54). The queue in Yao et al. does not contain an indication of the queue’s length. At best, the queue has a frame length of 20 milliseconds. Applicants submit that the static, constant frame length of Yao et al. teaches away from providing an indication of a queue length within the frame. Further, while Yao et al. may determine the quality of the communications channel by examining the length of the queue, per the above, Yao et al. is silent with respect to a coded representation of a queue length. Thus, Yao et al. merely discusses the data rate, and, in

an apparently unrelated process, uses the length of the queue to determine a rate at which frames are dropped. Further, nothing is cited or found in Hwang et al., Tiedemann et al. or Ishida et al. that overcomes these deficiencies of Yao et al.

Claims 23-25 depend from independent claim 22 and add further features thereto. thus, the arguments above with respect to the independent claims also apply to the dependent claims.

Per the above, Yao et al., Hwang et al., Tiedemann et al. and Ishida et al., both individually and in combination, fail to teach or suggest all of the features of the above-rejected claims under 35 U.S.C. § 103(a). Accordingly, it is respectfully submitted that the rejection is overcome and respectfully requested that the rejection be withdrawn.

#### **New Claims**

New claims 33-65 have been added. Apparatus claims 33-37, which each have their own scope, recite similar features to method claims 1, 3, 4, 7 and 16, respectively, and means-plus-function claim 38, which has its own scope, recites similar features to method claim 1. Method claims 39-43, which each have their own scope, recite similar features to apparatus claims 14, 18 and 26-28, respectively, and software claim 44 and means-plus-function claim 45, which each have their own scope, recite similar features to apparatus claim 14. Method claims 46-49, which each have their own scope, recite similar features to apparatus claims 15, 19, 29 and 30, respectively, and software claim 50 and means-plus-function claim 51, which each have their own scope, recite similar features to apparatus claim 15. Apparatus claims 52-55, which each have their own

scope, recite similar features to method claims 22-25, respectively, and software 56 and means-plus-function claim 57, which each have their own scope, recite similar features to method claim 22. New dependent claims 58-65 have also been added. Support for the new dependent claims is found at least on page 5, line 4, through page 5, line 3, of the present application. Thus, it is respectfully submitted that new claim 33-65 patentable distinguish over the cited art for at least the reasons discussed above with respect to the independent claims.

### **Conclusion**

For at least the reasons presented above, it is respectfully submitted that claims 1, 3, 4, 7-9, 13-16 and 18-65, comprising all of the currently pending claims, patentably distinguish over the cited art. Accordingly, it is respectfully requested that the claims be allowed and the application be passed to issue.

If for any reason the Examiner determines that the application is not now in condition for allowance, it is respectfully requested that the Examiner contact, by telephone, Applicants' undersigned representative at the indicated telephone number to arrange for an interview to expedite the disposition of this application.

In the event this paper is not being timely filed, Applicants respectfully petition for an appropriate extension of time. Any fees for such an extension together with any additional fees may be charged to Counsel's Deposit Account 50-2222.

Respectfully submitted,



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